

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-24. (Canceled).

25. (Currently amended) A method of promoting the survival of neuronal cells in a mammal comprising administering to the mammal ~~a therapeutically effective amount of~~ a BMP-11 polypeptide in an amount effective to promote the survival of neuronal cells, wherein the BMP-11 polypeptide comprises an amino acid sequence encoded by a nucleotide sequence chosen from:

- (i) nucleotides 778 to 1083 of SEQ ID NO:10;
- (ii) ~~nucleotides sequences that encode~~ a nucleotide sequence that encodes the same amino acid sequence as nucleotides 778 to 1083 of SEQ ID NO:10; ~~and or~~
- (iii) ~~nucleotides that hybridize~~ a nucleotide sequence that hybridizes under stringent conditions with the complement of the nucleotide sequences of (i) or (ii) and ~~encode a protein having BMP-11 activity in an osteoinduction assay~~ encodes a protein that promotes the survival of neuronal cells in culture, wherein the stringent conditions comprise hybridizing at 65°C and washing at 65°C in 0.1x SSC, 0.1% SDS,

thereby promoting the survival of neuronal cells in the mammal.

26. (Currently amended) A method of promoting the survival of neuronal cells in vitro comprising administering to the cells ~~a therapeutically effective amount of a BMP-11 polypeptide~~ in an amount effective to promote the survival of neuronal cells, wherein the BMP-11 polypeptide comprises an amino acid sequence encoded by a ~~nucleotide sequence chosen from:~~

- (i) nucleotides 778 to 1083 of SEQ ID NO:10;
- (ii) ~~nucleotides sequences that encode~~ a nucleotide sequence that encodes the same amino acid sequence as nucleotides 778 to 1083 of SEQ ID NO:10; ~~and or~~
- (iii) ~~nucleotides that hybridize~~ a nucleotide sequence that hybridizes under stringent conditions with the complement of the nucleotide sequences of (i) or (ii) and ~~encode a protein having BMP-11 activity in an osteoinduction assay~~ encodes a protein that promotes the survival of neuronal cells in culture, wherein the stringent conditions comprise hybridizing at 65°C and washing at 65°C in 0.1x SSC, 0.1% SDS,

thereby promoting the survival of the neuronal cells ~~in the mammal.~~

27. (Currently amended) A method for inducing neurite formation from a ~~neural progenitor~~ neuronal cell in a mammal comprising administering to the mammal ~~a therapeutically effective amount of a BMP-11 polypeptide~~ in an amount effective to induce neurite formation from the neuronal cell, wherein the BMP-11 polypeptide comprises an amino acid sequence encoded by a ~~nucleotide sequence chosen from:~~

- (i) nucleotides 778 to 1083 of SEQ ID NO:10;
- (ii) ~~nucleotides sequences that encode~~ a nucleotide sequence that encodes the same amino acid sequence as nucleotides 778 to 1083 of SEQ ID NO:10; and or
- (iii) ~~nucleotides that hybridize~~ a nucleotide sequence that hybridizes under stringent conditions with the complement of the nucleotide sequences of (i) or (ii) and ~~encode a protein having BMP-11 activity in an osteoinduction assay~~ encodes a protein that promotes the survival of neuronal cells in culture, wherein the stringent conditions comprise hybridizing at 65°C and washing at 65°C in 0.1x SSC, 0.1% SDS,

thereby inducing neurite formation in the mammal.

28. (Currently amended) A method for inducing neurite formation from a ~~neural progenitor~~ neuronal cell in vitro comprising ~~treating the neural cell in vitro with a therapeutically effective amount of a BMP-11 polypeptide~~ administering to the cell a BMP-11 polypeptide in an amount effective to induce neurite formation from the neuronal cell, wherein the BMP-11 polypeptide comprises an amino acid sequence encoded by a nucleotide sequence chosen from:

- (i) nucleotides 778 to 1083 of SEQ ID NO:10;
- (ii) ~~nucleotides sequences that encode~~ a nucleotide sequence that encodes the same amino acid sequence as nucleotides 778 to 1083 of SEQ ID NO:10; and or

- (iii) ~~nucleotides that hybridize~~ a nucleotide sequence that hybridizes under stringent conditions with the complement of the nucleotide sequences of (i) or (ii) and ~~encode a protein having BMP-11 activity in an osteoinduction assay~~ encodes a protein that promotes the survival of neuronal cells in culture, wherein the stringent conditions comprise hybridizing at 65°C and washing at 65°C in 0.1x SSC, 0.1% SDS,

thereby inducing neurite formation from the neuronal cell.

29-34. (Canceled)

35. (Currently amended) The method of any one of claims ~~25-32~~ 25-28, wherein the BMP-11 polypeptide comprises amino acids 7 to 108 of SEQ ID NO:11.

36. (Currently amended) The method of any one of claims ~~25-32~~ 25-28, wherein the BMP-11 polypeptide comprises amino acids 1 to 109 of SEQ ID NO:11.

37. (Canceled)

38. (Currently amended) The method of ~~claim 29 or claim 30~~ claim 27 or 28, wherein the neuronal progenitor cell is a stem cell.

39-40. (Canceled)

41. (New) A method of promoting the survival of neuronal cells in a mammal comprising administering to the mammal a BMP-11 polypeptide in an amount effective to promote the survival of neuronal cells, wherein the BMP-11 polypeptide comprises an amino acid sequence chosen from:

- (i) amino acids 7 to 108 of SEQ ID NO:11; and

(ii) amino acids 1 to 109 of SEQ ID NO:11;

thereby promoting the survival of neuronal cells in the mammal.

42. (New) A method of promoting the survival of neuronal cells in vitro comprising administering to the cells a BMP-11 polypeptide in an amount effective to promote the survival of neuronal cells, wherein the BMP-11 polypeptide comprises an amino acid sequence chosen from:

(i) amino acids 7 to 108 of SEQ ID NO:11; and

(ii) amino acids 1 to 109 of SEQ ID NO:11;

thereby promoting the survival of the neuronal cells.

43. (New) A method for inducing neurite formation from a neuronal progenitor cell in a mammal comprising administering to the mammal a BMP-11 polypeptide in an amount effective to induce neurite formation from the neuronal progenitor cell, wherein the BMP-11 polypeptide comprises an amino acid sequence chosen from:

(i) amino acids 7 to 108 of SEQ ID NO:11; and

(ii) amino acids 1 to 109 of SEQ ID NO:11;

thereby inducing neurite formation in the mammal.

44. (New) A method for inducing neurite formation from a neuronal progenitor cell in vitro comprising administering to the cell a BMP-11 polypeptide in an amount effective to induce neurite formation from the neuronal progenitor cell, wherein the BMP-11 polypeptide comprises an amino acid sequence chosen from:

(i) amino acids 7 to 108 of SEQ ID NO:11; and

(ii) amino acids 1 to 109 of SEQ ID NO:11;

thereby inducing neurite formation from the neuronal progenitor cell.

45. (New) The method of claim 41, wherein the BMP-11 polypeptide consists of amino acids 7 to 108 of SEQ ID NO:11.

46. (New) The method of claim 41, wherein the BMP-11 polypeptide consists of amino acids 1 to 109 of SEQ ID NO:11.

47. (New) The method of claim 42, wherein the BMP-11 polypeptide consists of amino acids 7 to 108 of SEQ ID NO:11.

48. (New) The method of claim 42, wherein the BMP-11 polypeptide consists of amino acids 1 to 109 of SEQ ID NO:11.

49. (New) The method of claim 43, wherein the BMP-11 polypeptide consists of amino acids 7 to 108 of SEQ ID NO:11.

50. (New) The method of claim 43, wherein the BMP-11 polypeptide consists of amino acids 1 to 109 of SEQ ID NO:11.

51. (New) The method of claim 44, wherein the BMP-11 polypeptide consists of amino acids 7 to 108 of SEQ ID NO:11.

52. (New) The method of claim 44, wherein the BMP-11 polypeptide consists of amino acids 1 to 109 of SEQ ID NO:11.